

# PARKHILL (C.)

## A New Apparatus for the Treatment of Frac- ture of the Inferior Maxilla.

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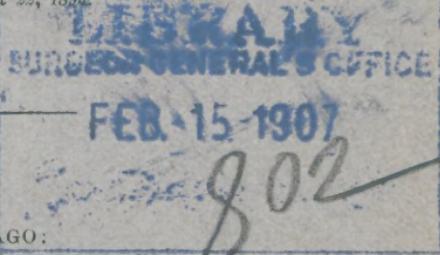
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BY CLAYTON PARKHILL, M.D.

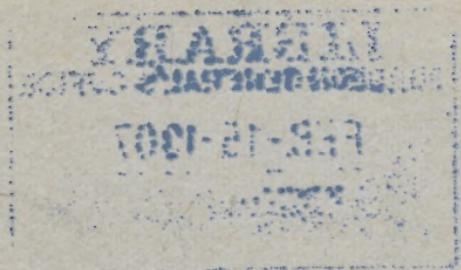
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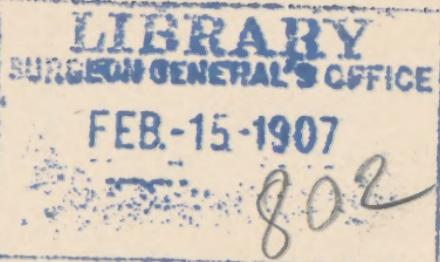
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## A NEW APPARATUS FOR THE TREATMENT OF FRACTURE OF THE INFERIOR MAXILLA.

Last October I was consulted by Mr. C., who gave the history of having been sandbagged the night before. The right side of his face and the parotid region presented evidence of serious contusion. The mouth was open and fixed, giving him the appearance of having a dislocation of the jaw. The incisors were separated about three-quarters of an inch, the posterior molars being in contact. There was no lateral displacement. On examination under an anesthetic, I found a fracture of the neck of the jaw. Crepitus was marked. There was apparently no displacement of the upper fragment. Reduction was effected very easily, the teeth coming into perfect articulation. A gutta-percha splint was molded to the jaw, and attached by tapes to a cap covering the head, making an apparatus similar to what is known as the French Dressing.

No sooner had the influence of the anesthetic passed away than the deformity returned. I then applied in turn the various bandages which have been recommended, only to be met by failure with each one.

On the following day I requested Dr. H. P. Kelly, an expert dentist of this city to see him with me, and make a model for an inter-dental splint. It was found impossible to separate the molars sufficiently to get the plastic material between them. I then applied the Hamilton Dressing, only to suffer another defeat.

It was evident that the displacement was due to the action of the temporal and masseter muscles on the



Fig. 1.



Fig. 2.



Fig. 3.

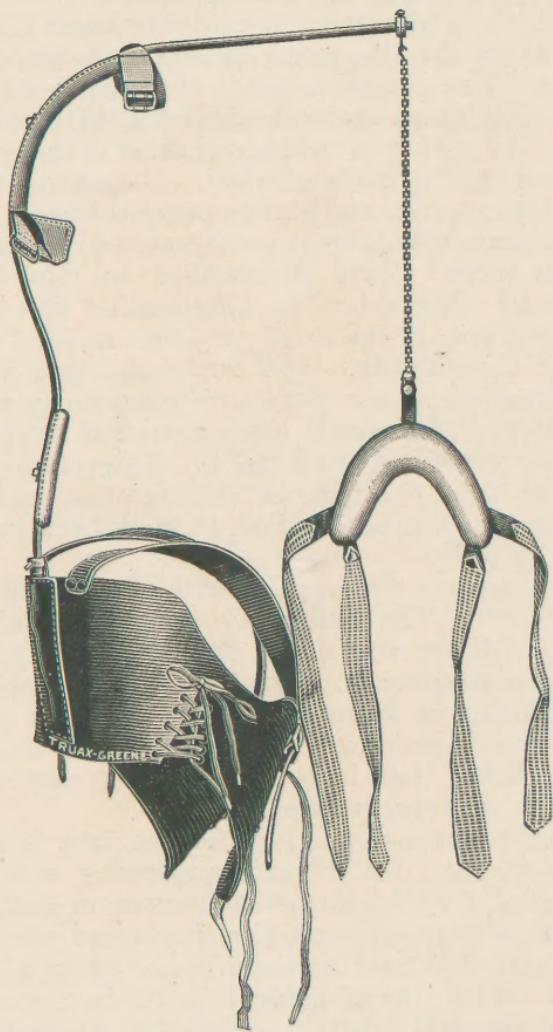


Fig. 4.

side affected, and that a dressing capable of holding the jaw in place must be one having an upward and forward pressure, antagonizing this force.

I had the Denver Surgical Instrument Company make for me the apparatus shown in the accompanying cuts. The corset is made of heavy leather and has a socket fitted in it at the back to receive the spring. The spring is in shape similar to the ordinary jury-mast, and is made of steel. It has attached to it an inter-scapular pad and an occipital pad. On its anterior extremity there is an adjustable ring fastened by a set screw. This is intended to regulate the tension by shortening or lengthening the spring. The jaw-piece is made of copper, molded to the shape of the maxilla. The horizontal and vertical tapes attached to the jaw-piece posteriorly are self explanatory. The small chain attached to the jaw-piece anteriorly ends in a hook. This chain is intended to pass through the sliding ring, and when the proper tension is attained, to hook back into one of its own links.

This apparatus was applied with the patient under an anesthetic. The deformity was completely corrected, and there was never the slightest tendency towards its recurrence. The patient expressed himself as feeling no discomfort. He removed it contrary to my directions at the end of twenty-one days. I had intended that he should wear it four weeks. The result, however, was perfect.

A fracture through the neck of the jaw, is a very rare injury, but I believe this apparatus will prove equally good for other forms of fracture of that bone. I propose to have made another jaw-piece which will extend upward around the maxilla and afford a lateral support. With this addition I think the instrument will apply as well to either simple or multiple fractures of the body of the bone, as it does to the neck.

The results obtained in fracture of the lower jaw are far from satisfactory in many cases. Within the last three years I have operated on three cases which

were sent to me suffering from ununited fracture. This number of failures to get union in a fracture of no greater frequency seems to me to indicate that present modes of treatment are not entirely satisfactory, and affords me encouragement to present this new method of treatment to the profession for its approval.





